

Attorney Docket No. 5008.02-5  
Customer No. 23308

PATENT  
Ser. No. 09/991,548

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-48. (Canceled)

49. (New): A method of modulating the activity of a type 2 cell-surface receptor containing an activation sequence comprising contacting said receptor and an exogenous compound that binds said activation sequence, wherein said activation sequence is a segment of said cell surface receptor having at least 10% amino acid sequence identity and at least 35% sequence similarity with a segment of the same length from a MHC Class I alpha-1 domain sequence, when said identity and said similarity are determined by the Wisconsin Package, version 8.0 Open VMS, Genetics Computer Group,

said exogenous compound is characterized by being other than a MHC Class I alpha-1 domain sequence and from more than 100 to less than about 2,500 daltons, has at least an amine, carbonyl, hydroxyl or carboxyl group, and comprising a cyclical carbon or heterocyclic structure,

and wherein said cell-surface receptor is on the surface of a mammalian cell.

50. (New): A method according to claim 49 wherein said cell is a human cell.

51. (New): A method according to claim 49 wherein said contacting is done in the absence of any exogenous ligand which normally activates said cell surface receptor.

52. (New): A method according to claim 49 wherein said contacting is done in the presence of a ligand which normally activates said receptor, wherein the level of activation is reater with a combination of ligand and exogenous compound than with the same amount of ligand alone.

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53. (New): A method according to claim 49 wherein the level of receptor activation is increased.

54. (New): A method according to claim 49 wherein the level of receptor activation is decreased.

55. (New): A method according to claim 53 wherein said activation comprises a conformational change in said receptor sufficient to elicit a phosphorylation event.

56. (New): A method according to claim 54 wherein said activation comprises a conformational change in said receptor sufficient to elicit a phosphorylation event.

57. (New): A method according to claim 49 wherein said cell-surface receptor is selected from the group consisting of insulin responsive glucose transporter, leptin receptor, low density lipoprotein receptor, granulocyte colony stimulating factor receptor, interleukin receptors including IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-11, IL-12, IL-13, IL-15 and IL-17 receptors, human growth hormone receptor, VEGF receptor, PDGF receptor, EPO receptor, TPO receptor, transferring receptor, prolactin receptor, T-cell receptor, CNF receptor, and epidermal growth factor receptor.

58. (New): A method of modulating the activity of a type 2 cell-surface receptor containing an activation sequence, wherein said receptor is selected from the group consisting of insulin responsive glucose transporter, leptin receptor, low density lipoprotein receptor, granulocyte colony stimulating factor receptor, interleukin receptors including IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-11, IL-12, IL-13, IL-15 and IL-17 receptors, human growth hormone receptor, VEGF receptor, PDGF receptor, EPO receptor, TPO receptor, transferring receptor, prolactin receptor, T-cell receptor, CNF receptor, and epidermal growth factor receptor,

comprising contacting said receptor and an exogenous compound that binds said activation sequence, wherein said activation sequence is a segment of said cell surface

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receptor having at least 10% amino acid sequence identity and at least 35% sequence similarity with a segment of the same length from a MHC Class I alpha-1 domain sequence, when said identity and said similarity are determined by the Wisconsin Package, version 8.0 Open VMS, Genetics Computer Group,

said exogenous compound is characterized by being other than an oligopeptide and from more than 100 to less than about 2,500 daltons, has at least an amine, carbonyl, hydroxyl or carboxyl group, and comprising a cyclical carbon or heterocyclic structure, and wherein said cell-surface receptor is on the surface of a mammalian cell.

59. (New): A method according to claim 58, wherein said exogenous compound comprises a heterocyclic aromatic structure.